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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,566	03/29/2004	Jerome J. Cartmell	EMS-07501	1387

7590 06/14/2006

Patent Group
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EXAMINER

VERBRUGGE, KEVIN

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,566

Applicant(s)

CARTMELL ET AL.

Examiner

Kevin Verbrugge

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 1, 10 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/3/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This non-final Office action is in response to the application filed 3/29/04. Claims 1-20 are pending.

Claim Objections

Claims 1, 10, and 15 are objected to because of the following informalities:

In claim 1, line 8, "being read to and written from" should be changed to --being read from and written to--.

In claim 10, line 15, "being read to and written from" should be changed to --being read from and written to--.

In claim 15, line 12, "being read to and written from" should be changed to --being read from and written to--.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a computer program per se and as such do not fall within any of the four classes of invention delineated in 35 USC 101. As such the claims are unpatentable.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10, 11, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,761,705 to DeKoning et al.

DeKoning shows the claimed data storage device as RAID storage subsystem 100 in Fig. 1.

He shows the claimed plurality of disk drives as disk drives 110.

He shows the claimed internal volatile memory as cache memory 116.1 and 116.2 and teaches in several places that the cache memories include volatile and non-volatile portions (see column 8, lines 5-22, column 9, lines 53-58, and column 11, lines 23-26 and lines 49-51).

Finally, he shows the claimed directors as redundant disk array controllers (RDACs) 118.1 and 118.2. The RDACs perform the claimed operations as taught throughout the specification and summarized at column 2, line 30 through column 3, line 58.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-9, 12-14, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,761,705 to DeKoning et al.

DeKoning does not explicitly teach locking or testing the memory, however, these are standard memory operations and it would have been obvious to one of ordinary skill in the art at the time the invention was made to include them in DeKoning's device. Locking a portion of memory to prevent additional access to that portion of memory ensures that no changes will be made to memory to interfere with the current write that is being performed, thereby ensuring data accuracy. Testing a memory before using it reduces the chance of failures during use since a memory that fails testing can be flagged and replaced before being put into use.

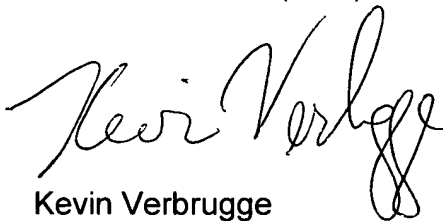
Conclusion

The method claims are grouped and rejected with the apparatus claims because the steps of the method are met by the disclosure of the apparatus and methods of the reference(s) as discussed above.

Any inquiry concerning this Office action should be directed to the Examiner by phone at (571) 272-4214.

Any response to this Office action should be labeled appropriately (including serial number, Art Unit 2189, and type of response) and mailed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, hand-carried or delivered to the Customer Service Window at the Randolph Building, 401 Dulany Street, Alexandria, VA 22313, or faxed to (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

A handwritten signature in black ink, appearing to read "Kevin Verbrugge", with a stylized, flowing script.

Kevin Verbrugge
Primary Examiner
Art Unit 2189